Panasonic

Super Dynamic Full HD Dome Network Camera
WV-SF138

Preliminary

Full HD / 1,920 x1,080 H.264 Network Camera featuring *Super Dynamic*

Key Features

- Wide coverage : Horizontal: 100 °, Vertical: 81 °(3 megapixels [4:3])
- Low profile design for discrete installation
- **1080p** HD images up to 30 fps
- 3.1 Megapixel high sensitivity MOS Sensor
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new “UniPhier®”, Panasonic’s proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,920 x 1080 image size
- ***Super Dynamic*** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- ***Face Super Dynamic*** Range technology ensures clear face image.
- High sensitivity with Day & Night (Electrical) function:1.2 lx (Color), 0.9 lx (B/W) at F2.2
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Selectable light control modes: Indoor scene (50 Hz) / Indoor scene (60 Hz) / ELC (maximum exposure time)
  Indoor scene (50 Hz/60Hz): Flicker caused by fluorescent lightning will be automatically compensated.
  ELC (maximum exposure time): The lightning control will be automatically performed by adjusting shutter speed in the range of ELC.
- 3x extra zoom at 640 x 360 resolution
- 2x, 4x digital zoom controlled by browser
- ***VIQS*** (Variable Image Quality on Specified area) technology allows the designated ***2 areas*** to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- Cropping function enables to provide whole image(1920 x 1080) and the part image(640 x 480) simultaneously.
  Up to 4 image capture areas can be specified, and it is also possible to control the sequence.
- Fog compensation
- VMD (Video Motion Detection) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Camera title display: Up to 20 alphanumeric characters on the browser
- Alarm sources including VMD and Panasonic alarm command can trigger actions such as SDXC/SDHC/SD memory recording, FTP image transfer, E-mail notification, Indication on browser, Alarm terminal output, and Panasonic alarm protocol output.
- Built-in Microphone
- Full duplex bi-directional audio allows interactive communication between camera site and monitoring site.
- JPEG Image compression ratio can be changed by alarm so that higher quality image can be provided.
- Prioritized stream control: One of the video streams can be prioritized when multiple recorders or client PCs are accessing the camera so that the recorder or the client PC can maintain the frame rate.
- SDXC/SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- H.264 max. bit rate/client and Total bit rate control allows flexible network traffic management. Frame rate priority mode controls bit rate and compression ratio to provide the specified frame rate.
- Internet mode: H.264 images can be transmitted over HTTP protocol.
- Multi-language: English / Italian / French / German / Spanish / Russian / Chinese / Japanese
- IPv4/IPv6 protocol supported
- Supports SSL, DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- Onvif compliant model

Standard Accessories

- Installation Guide .....2 pc.
- Important Safety Instructions.....1 pc.
- CD-ROM*1 .....1 pc.
- Code Label*2 .....1 pc.
- Lens adjuster.....1 pc.

The following parts are used during installation procedures.
- Installation Template Label .....1 pc.

*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.
*2 This label may be required for network management. The network administrator shall retain the code label.

Optional Accessories

Smoke Dome Cover
WV-CW6SA
Launches in June 2013

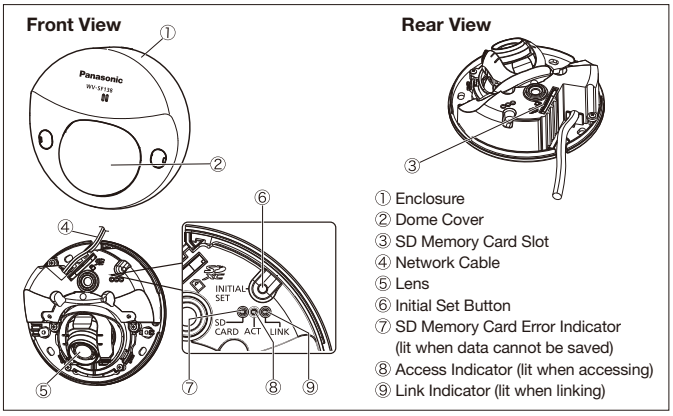
Specifications

Camera	Image Sensor		1/3 type MOS Sensor
	Effective Pixels		Approx. 3.1 megapixels
	Scanning Mode		Progressive scan
	Scanning Area		4.51 mm(H) x 3.38 mm(V) {3/16 inches (H) x 1/8 inches (V)}
	Minimum Illumination		Color: 1.2 lx, BW: 0.9 lx (F2.2, Auto slow shutter: Off (1/30s), Gain:On(High)) Color: 0.075 lx, BW 0.056 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain:On(High)) *1
	White Balance		AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)
	Light Control Mode		Outdoor scene: Automatic integration Indoor scene [50 Hz]: Automatic integration (up to 1/100 s) Indoor scene [60 Hz]: Automatic integration (up to 1/120 s) ELC: (up to 1/10,000 sec.)
	Shutter Speed		Max shutter: 1/30, 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000(only at Super Dynamic OFF)
	Super Dynamic		ON / OFF
	Face Super Dynamic		ON / OFF (Only at Super Dynamic: ON)
	Adaptive Black Stretch		ON / OFF (Only at Super Dynamic: OFF)
	Fog compensation		ON / OFF
	AGC		ON (LOW, MID, HIGH) / OFF
	Electronic Sensitivity UP		OFF / Max. 2x (2/30 s), 4x (4/30 s), 6x (6/30 s), 10x (10/30 s), 16x (16/30 s)
	Day & Night (electrical)		OFF / Auto
	Digital Noise Reduction		High / Low
	Video Motion Detection		ON / OFF, 4 areas available
	Privacy Zone		ON / OFF (up to 2 zones available)
	VIQS		ON / OFF(up to 2 zones available)
	Camera Title (OSD)		Up to 20 characters (alphanumeric characters, marks), ON / OFF
	Mirror Upside down		ON / OFF
	Lens Distortion Conpensation		256 steps
Lens	Focal Length		1.95 mm
	Zoom Ratio		1x / Extra Zoom 3x (2 megapixels at 640x360 resolution)
	Angular Field of View		Horizontal: 100° Vertical: 81° (3 megapixels [4:3]) Horizontal: 95° Vertical: 62° (2/1.3 megapixels [16:9]) Horizontal: 84° Vertical: 68° (1.3 megapixels [4:3])
	Maximum Aperture Ratio		1 : 2.2
	Focusing Range		0.5 m ~ ∞
	Aperture Range		F2.2
Adjusting Angle			• Ceiling installation Horizontal: -20° to +20° Vertical: -20° to +90° • Wall installation Horizontal: -80° to +80° Vertical: -90° to +20°
Browser GUI	Camera Control		Brightness
	Display Mode		Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad screens or 16 split screen (JPEG only). 20 characters camera title available.
	Digital Zoom		1x, 2x, 4x controlled by browser GUI
	Camera Title		Up to 20 alphanumeric characters
	Clock Display		Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)
	Alarm Control		Reset
	One Shot Capture		A still picture will be displayed on a newly opened window.
	Audio		Mic Input: ON / OFF Volume adjustment: Low / Middle / High,
	SD Memory Data Download		Still or motion Images recorded in the SDXC/SDHC/SD memory card can be downloaded.
	GUI/Setup Menu Language		English, Italian, French, German, Spanish, Russian, Chinese, Japanese
	System Log		Up to 100 (Internal) Up to 4,000 (SDXC/SDHC/SD memory when the recording format is set to JPEG.) error logs
	Supported OS *2 *3		Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3
	Supported Browser		Windows® Internet Explorer® 10.0 (32 bit), Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit),Windows® Internet Explorer® 7.0 (32 bit)
Network	Network IF		10Base-T / 100Base-TX, RJ-45 connector
	Image Resolution	Image Capture Mode: 2 mega pixel [16:9]	H.264: 1,920 x 1,080 / 640 x 360 / 320 x 180, up to 30 fps JPEG (MJPEG): 1,920 x 1,080 / 640 x 360 / 320 x 180, up to 30 fps
		Image Capture Mode: 1.3 mega pixel [16:9]	H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG (MJPEG): 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps
		Image Capture Mode: 1.3 mega pixel [4:3]	H.264: 1,280 x 960 / VGA(640 x 480) / QVGA(320 x 240), up to 30 fps JPEG (MJPEG): 1,280 x 960 / VGA(640 x 480) / QVGA(320 x 240), up to 30 fps
		Image Capture Mode: 3 mega pixel [4:3]	H.264: 1,280 x 960, up to 15 fps JPEG (MJPEG): 2,048 x1,536, up to 15 fps
	H.264 *4	Transmission Mode	Constant bitrate / Frame rate priority / Best effort /Advanced VBR
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps
		Bit Rate/Client	Constant bit rate/Best effort: 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 6,144 / 8,192 / 10,240 / 12,288 / 14,336 kbps
		Image Quality	LOW / NORMAL / FINE
		Refresh Interval	0.2 / 0.25 / 0.33 / 0.5 / 1 / 2 / 3 / 4 / 5 s
		Transmission Type	UNICAST / MULTICAST
	JPEG	Image Quality	10 steps
		Refresh Interval	0.1 fps ~ 30 fps
		Transmission Type	PULL / PUSH
	Cropping		2 megapixels [16:9] H.264 640×360/ 320×180, Max. 30 fps MJPEG 640×360/ 320×180, Max. 30 fps 1.3 megapixels [16:9] H.264 640×360/ 320×180, Max. 30 fps MJPEG 640×360/ 320×180, Max. 30 fps 1.3 megapixels [4:3] H.264 VGA (640×480)/ QVGA (320×240), Max. 30 fps MJPEG VGA (640×480)/ QVGA (320×240), Max. 30 fps

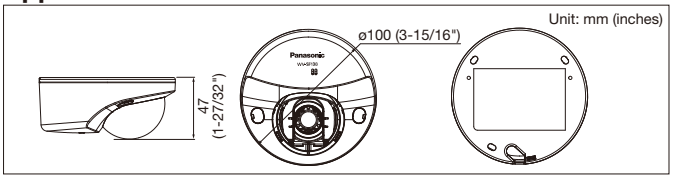
Network	Audio Compression	G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps for transmitting, AAC for audio recording and sound detection
	Audio Mode	OFF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)
	Authentication for Audio	Level 1 only / Level 2 higher / All users
	Total Bit Rate	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited
	Supported Protocol	IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP,FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP
	FTP Client	Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SDXC/SDHC/SD memory card is available.)
	No. of Simultaneous Users	Up to 14 users (Depends on network conditions)
	SDXC/SDHC/SD Memory Card (Option)	H.264 recording (Audio recording is enable): Manual REC / Alarm REC (Pre/Post) / Schedule REC JPEG recording: Manual REC / Alarm REC (Pre/Post) / Backup upon network failure Compatible SD (SDHC/SDXC) card: Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Cellular Phone Compatibility	JPEG image
	Mobile Terminal Compatibility	iPad, iPhone, iPod touch (iOS 4.2.1 or later), Android™ mobile terminals
Alarm	Alarm Source	VMD, Command alarm, Sound detection
	Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output
	Alarm Log	With SDXC/SDHC/SD memory card: 5,000 logs, without SDXC/SDHC/SD memory card: 1,000 logs
	Schedule	Alarm / VMD / Access permission / H.264 recording / Sound detection
Input/ Output	Microphone	Built-in microphone
General	Safety/EMC Standard	<Safety> UL (UL60950-1), C-UL (CAN/CSA C22.2 No.60950-1), CE, IEC60950-1 <EMC> FCC Part15 Class A, ICES-003 Class A, EN55022 Class B, EN55024
	Power Source and Power Consumption	PoE (IEEE802.3af compliant) / PoE 48 V: 110 mA (Class 2 device)
	Ambient Operating Temperature	0 °C to +40 °C {32 °F to 104 °F}
	Ambient Operating Humidity	Less than 90 % (no condensation)
	Dimensions	ø100 mm x 47 (H) mm {ø3-15/16 inches x 1-27/32 inches (H)}
	Mass (approx.)	Approx. 260 g { 0.57 lbs}
	Finish	Main body: ABS resin, sail white Dome cover: Clear polycarbonate resin

*1 Converted value
*2 Refer to "Notes on Windows Vista® / Windows® 7 / Windows® 8" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 8 or Microsoft® Windows® 7 or Microsoft® Windows Vista®.
*3 When using IPv6 for communication, use Microsoft® Windows® 8 or Microsoft® Windows® 7 or Microsoft® Windows Vista®.
*4 Transmission for 2 streams can be individually set in the same compression method.

Part Names and Functions



Appearance



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Important
– Safety Precaution: Carefully read the operating instructions and installation manual before using this product.
– Panasonic cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.

• Masses and dimensions are approximate.
• Specifications are subject to change without notice.
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